

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2532 MAP

2532

GEOLOGY OF T CLAIMS

NICOAMIN RIVER AREA

KAMLOOPS MINING DIVISION

2532

by

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November 25, 1969

GEOLOGY OF THE T CLAIMS
NICOAMIN RIVER AREA
KAMLOOPS MINING DISTRICT

INTRODUCTION

This report is being written for Walter Filipeck and Associates, with a view of outlining the economic potential of the T claims, which they hold in the Kamloops Mining District of British Columbia.

The claims are located on the Nicoamin River Area, approximately three miles south of the Trans Canada Highway. Access is by an all-weather logging road and several lesser logging roads cross the property. These latter roads could be easily rehabilitated to provide access to almost any portion of the property.

The major part of the area has been logged and wood-cover is no problem.

Water is easily available, as one large stream and many smaller streams cross the area.

To date a geochemical survey has been completed on the area, and considerable trenching has been done on the basis of the geochemical report.

The author has personally examined the area, and in addition to the existing 28 claims, 16 new claims have been staked, therefore no recommendation is made in this report for further staking.

RESUME AND CONCLUSIONS

1. Lithologically and structurally the T claims are suited for the presence of a large low-grade copper deposit.
2. A geochemical survey has delineated large areas with distinct high order copper anomalies and even larger areas with distinct copper anomalies.
3. Bedrock sampling has shown that both the distinct high order copper anomalies and the distinct copper anomalies, have anomalous mineralization near the surface.
4. The copper mineralization is associated with alteration of the bedrock and fracturing in the bedrock; magnetite is generally present in these areas.

It may be concluded that for the most part, the T claims have the potential for a large low-grade copper deposit. It may be further concluded that the presence of magnetite, in the bedrock, is indication of areas of mineralization.

Therefore, further work on the property is well warranted.

RECOMMENDATIONS

It is recommended that a magnetometer survey be carried out on the following lines:

L60N1E-2W	L68N11W-20W
L72N18W-32W	L76N20W-40W
L80N30W-38W	L92N28W-38W
L84N21W-28W	L88N30W-34W
L68N30W-40W	L80N17W-26W
L96N30W-38W	L88N46W-55W

These lines should be run at 100' centres, and rerun in more detail where magnetic anomalies are encountered.

In the case where a magnetic anomaly coincides with a distinct high order geochemical anomaly, or where a high order magnetic anomaly is found, the area should be opened with a bulldozer.

Preparations should be made to drill at least one hole, to a depth of about 1,000', the location to be chosen by the geologist on the site.

Further work should await the results of the above program.

BUDGET

1. Magnetometer Survey

1,200 line feet ± 2 men, 4 days	\$200.00	
magnetometer rental	130.00	
vehicle	120.00	
miscellaneous	<u>100.00</u>	
		\$550.00

2. Bulldozer

4 Days @ \$300.00/day		1,200.00
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3. Drilling

1,000' @ \$12.00/foot		12,000.00
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4. ^{GE} Biologist

20 days @ \$175.00/day	2,500.00	
Expenses - 20 days @ \$16.00/day	320.00	
Travelling 2,000 miles @ .15/mile	<u>300.00</u>	
		3,120.00

5. Assaying

2,000.00

TOTAL

\$18,870.00

N.B. It may be advisable to drill with a percussion drill,

in which case the total would be \$9,870.00

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FIGURES *(Rear)*

<i>#1</i>	Figure 1 Geological Map	end pocket
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They have been studied on the southwest portion of the map with particularly consistent outcroppings along line 12N6W to 15W.

The base of the series consists of red to green somewhat altered volcanics having amygdules of green (epidote?). There is a band, thickness unknown, of brownish (basalt?), some recrystallization has taken place, and numerous macroscopic crystals are present. Next comes a series of siltstones, schists, argillite and conglomerates; these contain some small crystals of secondary feldspar.

The series is terminated by a band of reddish volcanics, with secondary feldspar and calcite veining.

The entire series shows considerable alteration and variable amounts of epidote are present.

At the western part of the property just west of L56N-35W, and including stations W 36, 37, 38, a series of clastics have been encountered. They are composed of conglomerates, arkoses and argillites. There is no evidence of alternation; on the other hand none of the rock types existing in the area are contained in the conglomerates.

These latter rocks are thought to be part of Unit I, but may be the youngest rocks in the area.

Unit II
(Volcanic Beds)

This series consists of a massive brown flow rock (rhyolite?) wholly or partially recrystallized and containing secondary feldspar. Color varies from brown-gray to off-black; it is cut by veinlets of gypsum. The series forms the dominant relief in the area which runs approximately magnetic north-south.

At its southern extension this unit is relatively unaltered; some specimens were observed to contain pink feldspar as a secondary amygdule filling. In scattered locations, these beds were found to have macroscopic crystals of brown feldspar; these latter are probably also secondary.

To the north, in trenches A, B, C and D, this unit is completely altered, and is composed of secondary feldspar with macroscopic crystals, magnetite, epidote and possibly actinolite and pyroxene as seen in the band specimen; microscopic sulphides as well as malachite staining is also present in the more tectonized portions. The outcrops are cut by veinlets of gypsum and zones of iron oxides are frequent.

A specimen of this unit from trench "D" showed silicon as major constituent with aluminum, calcium, iron and magnesium as the intermediate constituent.

Unit III (Calcic Beds)

The predominant rock type in this unit is a grayish, siliceous and often altered, calcic rock. It is interbedded with

gray-green siliceous beds which may be altered volcanics (rhyolite?) and some brownish volcanics, similar to those of Unit II. These strata have a large expanse in the middle portion of the map area.

At the contact with Unit II, the Calcic Beds contain bands of weathered gray-green volcanics interbedded with the occasional bed of brownish volcanics, similar to those of Unit II. The alternation between these beds may be observed at trench "E". At this locality, the beds are relatively unaltered, although there is some secondary feldspar in the brown volcanics. The calcic rocks contain some sulphides, specularite and probably barite.

In trenches "A", "B", "C" and "D" the basal beds of Unit II are highly altered, fractured and contain veinlets of gypsum. Zones of iron oxide are present and variable amounts of magnetite and epidote are found and probably some actinolite. The darker beds, as is the case of the same type in Unit II, have been completely transformed and consist mainly of secondary feldspar and magnetite.

The calcarious beds of this unit are found farther up-section. They are relatively soft and form depressions. These beds are interbedded with the gray-green volcanics. This zone is highly altered, contains scattered magnetite and zones

of epidote. Some small bodies of solid magnetite with chalcopyrite and bornite without any obvious roots have been found in these sediments.

Mount Lytton Batholite

This intrusive is a quartz diorite in this area; it contains an unusual amount of quartz and also hornblende and biotite. It intrudes all the above-mentioned units.

Kingsvale Volcanics

This series probably overlays the preceding unconformably. In this area it may be in fault contact with Unit III.

STRUCTURAL GEOLOGY

Folding

The strata of Units I, II and III dip eastward at an average of about 40° off of the Mount Lytton Batholite to the west. Northward, a secondary fold is superimposed upon the general dip forming a northerly plunging monocline. This plunging monocline coincides with the high order anomalies as found in the geochemical survey.

To the west of the monocline, there appears to be a tight syncline whose axis is also plunging northward; some anomalous areas appear on this axis. The west flank of the syncline dips at about 60° off of the Mount Lytton Batholite.

Faulting

There is some evidence (slickensiding) that a major fault may be found along the contact between the Kingsvale

Volcanics and the preceding strata.

Minor faults and shear zones are frequent in the anomalous area; they trend generally N-S, approximately parallel to the axis of the above-mentioned monocline. It is along these zones that the alteration and mineralization is most evident.

ECONOMIC GEOLOGY

As previously stated, the mineralization appears to be associated with north-south structures on the plunge of a monocline. Whether it is a matter of the formation of avenues of entry for the mineralizing fluids and/or vapors by the fracturing, or whether the monocline itself is formed by an intrusive at depth is open to question.

A grab sample taken from the calcic sediments assayed 0.13% Cu.

A systematic sampling across 270 feet \pm on trench "C" gave the following results in cu., from east to west.

Unit III, volcanics, gy-gn, scattered mag. (spot)	0.15%
Unit III, volcanics, gy-gn, scattered mag. 12'	0.13%
Unit III, volcanics, gy-gn, scattered mag. oxidized 35'	0.73%
Unit III, volcanics, dk-br, high mag. 37'	0.05%
Unit III, volcanics, gy-gn, scattered mag. 20'	0.18%
Unit III, volcanics, alt. gy-gn, scattered mag. and dk-br, high mag. 55'	0.13%

Unit II, volcanics, dk-br, high mag. 30'	0.10%
Unit II, olb 25'	
Unit II, volcanics, dk-br, high mag. 15'	0.10%
Unit II, volcanics, oxydized zone 20'	0.15%
Unit II, volcanics, oxydized zone 20'	0.13%

From the above, it is apparent that the main mineralization is associated with fractures and alterations in the bedrock and that these phenomenon are signalled by the presence of epidote and iron oxide. Although the mineralization would appear to be later than the infusion of the magnetite, it seems that this latter is generally found with the mineralization and may signal areas which are favorable to mineralization.

The assays recorded above are over a large extent and are highly anomolous.

The geochemical survey delineates several large, high order anomolies; it is across and in the vicinity of one such anomaly that the above sampling was carried out. The sampling, therefore, corroborates the geochemical data. It should be noted that some of the values were just off the anomaly and to the east, on a distinct but lower order anomaly.

From the above and from field observations, the undersigned feels that there is very little difference between a distinct anomaly and a distinct high order anomaly, and that thickness of overburden may be the cause of the variability in

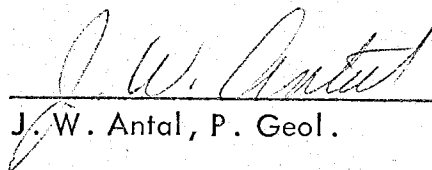
the geochemical data, insofar as the distinction between these two anomalies is concerned.

It should be noted that a distinct copper anomaly, by geochemical survey is present over a very large part of the area.

CERTIFICATION

This is to certify that I, J. W. Antal

1. am a Professional Geologist, registered in the Province of Alberta,
2. that I have completed the Degree of Bachelor of Science in Geology, at St. Francis Xavier University in 1948, and a Doctor of Science Degree at Lausanne University, Switzerland, in 1960.
3. I have been actively engaged in exploration geology since 1950, in Canada, in Pakistan, in North Africa and in Europe.
4. I have no interest nor expect to get any interest in the properties mentioned herein, nor any stocks which may be issued on this property.
5. I have personally examined the properties described herein, and have studied the geochemical report referred to herein.



J. W. Antal, P. Geol.

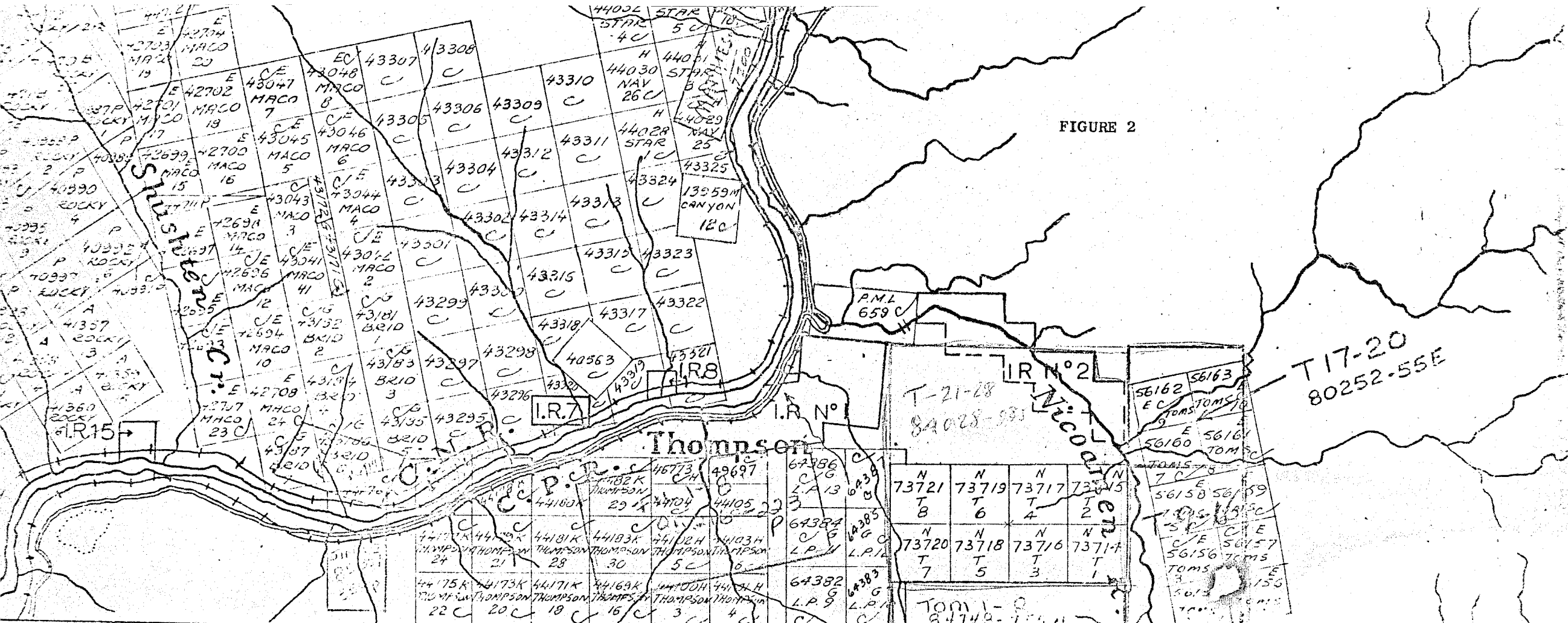


FIGURE 2

S MINING DISTRICT

TO SOUTH SEE MAP 92 I/3W

DEPARTMENT OF MINES AND PETROLEUM RESOURC

VICTORIA, B. C.

MINERAL CLAIM MAP 92 I/6W (M)

SCALE 1/2 MILE TO 1 INCH

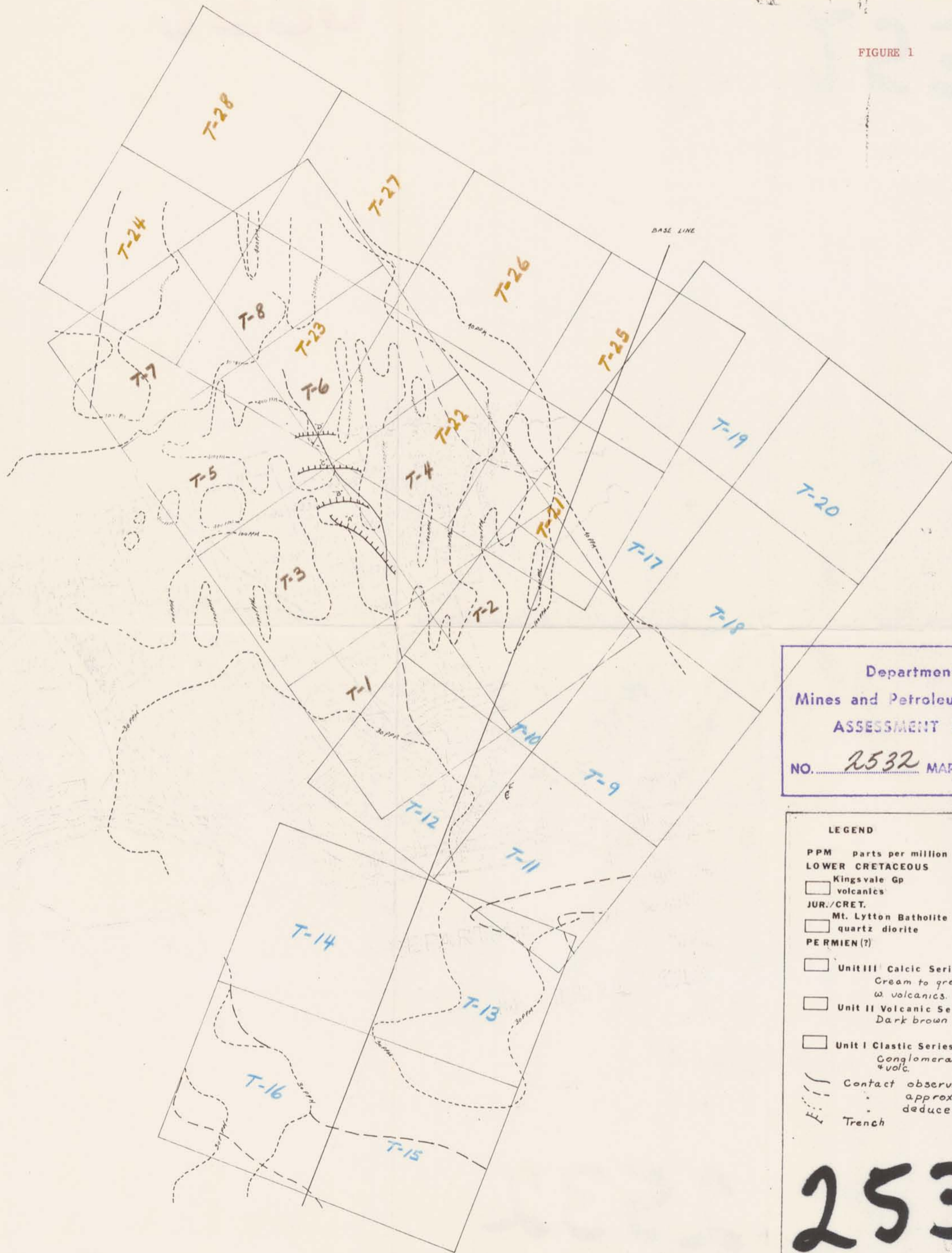
information on
area you should
Mining Recorder
Division conc-

A

B

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FIGURE 1



Department of
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- LEGEND**
- PPM parts per million
 - LOWER CRETACEOUS**
 - Kingsvale Gp
volcanics
 - JUR./CRET.**
 - Mt. Lytton Batholite
quartz diorite
 - PERMIEN (?)**
 - Unit III Calcic Series
Cream to grey limestone interb.
w. volcanics.
 - Unit II Volcanic Series
Dark brown to off-black volc.
 - Unit I Clastic Series
Conglomerates, arkose, schist,
& volc.
 - Contact observed.
 - - - approximate
 - deduced from geochem. survey
 - Trench

T MINERAL CLAIM GROUP
NICOAMEN RIVER
KAMLOOPS MINING DISTRICT
GEOL MAP

by
J.W. Antal

0 200' 400' 600' 800'
Scale

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